

REMARKS/ARGUMENTS

In view of the following remarks, the applicants respectfully submit that the pending claims are not anticipated under 35 U.S.C. § 102 and are not rendered obvious under 35 U.S.C. § 103. Accordingly, it is believed that this application is in condition for allowance. If, however, the Examiner believes that there are any unresolved issues, or believes that some or all of the claims are not in condition for allowance, the applicants respectfully request that the Examiner contact the undersigned to schedule a telephone Examiner Interview before any further actions on the merits.

The applicants will now address each of the issues raised in the outstanding Office Action. Before doing so, however, the undersigned would like to thank Examiner Nguyen for courtesies extended during a telephone interview on May 17, 2007 (referred to as "the telephone interview").

During the telephone interview, claims 2, 6, 15, 20 and 30 were discussed. The fact that a Boolean match does not teach "degree of match" was discussed. Further, the fact that the "importance weights" in the Radwin publication do not reflect a degree of match between a query and characteristics of identified advertisements was discussed. Finally, the fact that the Radwin publication teaches away from using demographic information, either alone or in combination with other ad targeting techniques, was discussed.

**Rejections under 35 U.S.C. § 102**

Claims 2-5, 8-15, 17-19, 21-28 and 30 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Published Patent Application No. 2003/0050863 ("the Radwin publication"). The applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection in view of the following.

Before addressing at least some of the patentable features of the claimed invention, the Radwin publication is introduced. The Radwin publication concerns serving both "immediate" ads, and "time-dependent" ads. An immediate ad is presented with an associated search results page, while a time-dependent ad is presented with a web page presented to a user after the display of the search results page (until a period of time expires). (See, e.g., the Abstract.) An immediate ad is determined based on a current search query, while a time-dependent ad is determined based on past search query information stored in a user profile.

Referring to both Figures 2 and 6, a user's search query, which has one or more search terms, is accepted by a web server. The user's search terms and characteristics (e.g., time and date) are stored and indexed for later use to present time-dependent advertisements associated with the search terms. Each search term is associated with a time stamp, as a characteristic, for determining when the search term is to no longer be used for selecting a time-dependent advertisement based upon the particular search term. (See, e.g., paragraph [0053].)

Immediate (also referred to as "keyword targeted") ads may be determined as follows. One or more received search terms are matched against keyword terms stored in an advertisement database (See, e.g., the search term index 24 of Figure 4 and the ad repository 20 of Figure 5.) to determine which advertisement will be presented as an immediate (i.e., keyword) advertisement. Such matching is performed, for example, by comparing each character of a text string representing the search terms with that of a text string representing the stored keyword terms. In determining the immediate (i.e., keyword) advertisement, matching is limited to those advertisements which are designated as keyword advertisements. (See, e.g., the keyword flags 45 that are "set" in Figure 5.) Finally, search results generated, for example, by a search engine 52 are presented to the user along with the determined immediate ad. (See, e.g., paragraphs [0053] and [0054].)

Suppose that the user selects another web page to view. The selected web page, when displayed, contains information associated with the search term queries and is accompanied by a time-dependent ad which may have been determined as follows. Previous search terms (e.g., stored in a user profile) are fetched (if the time stamp indicates that the search term has not expired). The previous search terms are matched against non-keyword terms (i.e., not flagged as a keyword term) to determine a sub-set of ads eligible for presentation as a time-dependent advertisement. A single time-dependent ad is selected from this sub-set of ads **by determining which of the advertisements in the sub-set is optimal for presentation**. The selection process might (a) filter out

ads that are not related to a previously stored search term (i.e., advertisements not associated with advertisement types related to certain terms), (b) maximize revenue, and/or (c) meet guaranteed minimum impression quotas. The selected time-dependent ad is then presented to the user accompanied with the content of the other, selected, web page. (See, e.g., paragraphs [0055] and [0056].)

Referring to Figure 5, note that the keyword flag 45 indicates whether a specific advertisement is to be presented when a certain search term is used to provide the results of a search query. For example, for keyword term "France", ad Bn (such as an advertisement for a French auto rental agency) is set to 1 to indicate that ad Bn is to be presented with the search results page. Such keyword terms are generally subject to an exclusive contract prohibiting other advertisements from being shown when a particular keyword search term is queried, whether alone or in combination with other terms. (See, e.g., paragraph [0045].)

Still referring to Figure 5, an ad importance weighting value 47 is either set automatically, or by an editorial staff member, to indicate how valuable and/or relevant a particular ad type or ad is relative to other ad types and ads. The importance weighting value 47 of a particular ad associated with an ad type might be adjusted based on external events or the significance of an ad. For example, if the number of impressions of an ad under a CPM arrangement is predicted to be below guaranteed minimum, an appropriate ad importance weighting value may be assigned to that ad. If a higher importance weighting is assigned to the ad, the ad will

have a relatively higher probability of being selected than otherwise. For example, as shown in Figure 5, since advertisements A1 and An are not keyword advertisements, they have a lower probability of being presented as a keyword flagged A2. Since, however, An has been assigned an importance weighting of 9, it might be shown before advertisement A1. Other weighting factors might override the importance weighting, or be combined with it to form an overall weighting. (See, e.g., paragraph [0041].)

As can be appreciated from the foregoing, the Radwin publication does not describe scoring advertisements based on a *degree of match* between a query and characteristics of the advertisements, nor does it describe applying thresholds to ranked or scored advertisements.

Independent claims 2, 15 and 30 are not anticipated by the Radwin publication because the Radwin publication does not teach scoring advertisements according to a *degree of a match* between the query and the characteristics of the identified advertisements. In rejecting original claims 2 and 16 which recited this feature, the Examiner cited paragraphs [0040], [0041] and [0046] of the Radwin publication as teaching this feature. The cited paragraphs concern an ad repository 20, such as the one illustrated in Figure 5. Apparently, in the Radwin publication, ads may be selected as a function of an associated keyword flag 45 and/or an importance weight 47.

As can be appreciated from the data structure of Figure 5, the keyword flag 45 and/or the importance weight 47 are associated with the ad and are therefore

***independent of a degree of match between an ad and a search query.***

As discussed above, the keyword flag 45 indicates whether a specific advertisement is to be presented when a certain search term is used to provide the results of a search query. As also discussed above, the ad importance weighting value 47 is either set automatically, or by an editorial staff member, to indicate how valuable and/or relevant a particular ad type or ad is relative to other ad types and ads. ***Neither describes a degree of match between a query and characteristics of an ad.***

In the "Response to Arguments" section of Paper No. 20060925, the Examiner argues that the claim does not mention that the matching has to be non-Boolean, and therefore the "broadest interpretation" of the claim reads on an association (or not) between a keyword and an advertisement. (See Paper No. 20060925, page 9.) The Examiner also argues that the Radwin publication teaches importance weight factors influencing a matching output, citing paragraphs [0040], [0041] and [0067]. (See Paper No. 20060925, page 9.) The applicants respectfully disagree with each of these arguments for reasons discussed below.

First, as discussed during the telephone interview, the Examiner's "broadest interpretation" analysis of the claim language is improper. MPEP 2111 correctly states that during patent examination, the pending claims must be given their broadest ***reasonable*** interpretation ***consistent with the specification and consistent with the interpretation that those skilled in the art would reach.*** Applying an improper standard, the Examiner concluded that "degree of match" reads on whether or not a match

between a keyword and an advertisement exists. *This interprets "degree of match" as simply "match", improperly rendering the "degree of" modifier superfluous.* The specification is consistent with the ordinary meaning of "degree" as an extent, measure, scope or the like. For example, the specification states:

The indexer 35 executes an advertisement search by evaluating the query 39 against the information and characteristics maintained in the advertisements 45. *Upon completing the advertisement search, the indexer 35 generates a set of advertising results 43, which contain the advertising excerpts 46, by applying the terms 40 specified in the query 39 to the stored information and characteristics.* In a further embodiment of the invention, the query 39 can be expanded by integrating additional information, such as category names 51 of products or services, or through a combination of actual content and category names 51. [Emphasis added.]

Page 8, lines 24-31. Thus, the indexer may be used to find a set of ads matching query terms. The specification further states:

In one implementation, the indexer 35 can identify thousands or even millions of advertising results 43, so only a subset of the advertising results 43, such as, in this implementation, between 100 to 10,000, are retained as the most promising advertising results 43. *The most promising advertising results 43 are then ranked or scored by degree of match to the terms 40 of the query 39.* The advertising results 43 can be

numerically scored to reflect a relative quality or relevance of match.

*The scorer 36 assigns a numerical score 44 to each advertising result 43 for indicating a quality of match.* The numerical score 44 is matched to the advertising result 43 in an advertisement score tuple, as further described below with reference to FIGURE 4. The numerical scores 44 can then be sorted and evaluated against a predefined threshold to filter the advertising results 43. *The numerical score 44 can be based on the degree of match to the actual content of each advertisement 45, to a category names 51 of products or services to which the advertisement 45 is associated, or by a combination of actual content and category names 51.* Preferably, the scored advertising results 43 are sorted by score 44 and those advertising results 43 failing to meet a predefined threshold are eliminated from further consideration. [Emphasis added.]

Page 9, line 19 through page 10, line 5. As can be appreciated from the foregoing, since the **"degree of match"** should be interpreted as the extent or measure of the match between an ad and query terms, it is different from the "match or no match" "Boolean" purportedly taught by the Radwin publication.

Second, the paragraph [0067] of the Radwin publication cited by the Examiner discusses using an importance weighting value of two or more corresponding advertisements in order to determine which of the ads is to be presented. However, this does not concern using a **"degree of match"** between a query and characteristics of the identified ad, but rather concerns using an "importance weight" (which is independent of the query).



Referring once again to paragraph [0041] and Figure 5 of the Radwin publication, an ad importance weighting value 47 is either set automatically, or by an editorial staff member, to indicate how valuable and/or relevant a particular ad type or ad is relative to other ad types and ads. The importance weighting value 47 of a particular ad associated with an ad type might be adjusted based on external events or the significance of an ad. For example, if the number of impressions of an ad under a CPM arrangement is predicted to be below a guaranteed minimum, an appropriate ad importance weighting value may be assigned to that ad. If a higher importance weighting is assigned to the ad, the ad will have a relatively higher probability of being selected than otherwise. For example, as shown in Figure 5, since advertisements A1 and An are not keyword advertisements, they have a lower probability of being presented as a keyword flagged A2. Since, however, An has been assigned an importance weighting of 9, it might be shown before advertisement A1. Other weighting factors might override the importance weighting or be combined with it to form an overall weighting. (See, e.g., paragraph [0041].)

As can be appreciated from the foregoing, the Radwin publication does not describe scoring advertisements based on a **degree of match** between a query and characteristics of the advertisement, nor does it describe applying thresholds to ranked or scored advertisements.

Thus, independent claims 2, 15 and 30 are not anticipated by the Radwin publication for at least the foregoing reasons. Since claims 3-5 and 12-14 depend, either directly or indirectly, from claim 2 and since

claims 17-19 and 21-28 depend, either directly or indirectly, from claim 15, these claims are similarly not anticipated by the Radwin publication.

Independent claim 8 is not anticipated by the Radwin publication because the Radwin publication does not teach a ranker to rank the identified advertisements using a selection criteria and ordering at least some of the ranked identified advertisements, and a selector to select at least some of the ordered identified advertisements relative to a ranking cutoff. The Examiner again cites paragraphs [0040] and [0041] of the Radwin publication as teaching this feature. However, the applicants respectfully submit that there is no ranking cutoff applied in the Radwin publication.

In the "Response to Arguments" section of Paper No. 20060925, the Examiner argues that the "guarantee minimum" of the Radwin publication teaches the claimed "ranking cutoff," citing paragraph [0041]. (See Paper No. 20060925, pages 9 and 10.) The Examiner further argues that the Radwin publication teaches changing the importance weight factor to increase a particular advertisement above a cutoff. (See Paper No. 20060925, page 10.) The applicants respectfully disagree.

The "guarantee minimum" in the Radwin publication referred to by the Examiner concerns a minimum number of ad impressions per month (apparently pursuant to an arrangement or contract agreement with an advertiser), not a ranking cutoff used to select ranked ads. In the claimed invention, the identified advertisements are

ranked using a selection criteria and at least some of the ranked identified advertisements are ordered. Then, at least some of the ordered identified advertisements are selected relative to a ranking cutoff. These acts are not taught by the guarantee minimum discussed in the Radwin publication.

Accordingly, claim 8 is not anticipated by the Radwin publication for at least the foregoing reason. Since claims 9-11 depend, either directly or indirectly from claim 8, these claims are similarly not anticipated by the Radwin publication. (Note also that dependent claims 5, 19, and 22 are further not anticipated by the Radwin publication for at least this additional reason.)

#### Rejections under 35 U.S.C. § 103

Claims 6 and 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over the Radwin publication. The applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection in view of the following.

The Examiner concedes that the system described in the Radwin publication does not include a filter for filtering identified ads relative to at least one of a country, a locale, a language and a daily budget. In an attempt to compensate for this admitted deficiency, the Examiner notes that paragraph [0007] of the Radwin publication discloses that using demographic profiling is known in the art. The Examiner then concludes that it would have been obvious to modify the system taught by Radwin to include the claimed filter in order to enhance

the efficiency of the targeted ads by focusing the selection and ensuing delivery of the ads to users who are more likely to purchase the items advertised.

As discussed during the telephone interview, the applicants respectfully disagree with the Examiner's conclusion in view of the express "teaching away" of the proposed modification in the Radwin publication. Specifically, the very next paragraph (paragraph [0008]) of the Radwin publication notes the "significant drawbacks" of using demographics for purposes of serving ads. As one example, the Radwin publication notes that users sometimes provide inaccurate information about their demographics. As another example, the Radwin publication notes that demographic ad targeting is impaired by inaccurate underlying assumptions. (See, e.g., paragraph [0008].) In view of the express teaching away from the use of demographic information for ad serving decisions in the Radwin publication, the applicants respectfully submit that the one skilled in the art would not have been motivated to modify the system of the Radwin publication as proposed by the Examiner.

In the "Response to Arguments" section of Paper No. 20060925, the Examiner argues that the claims recite "at least one of a country, locale, language, and daily budget," and that none of these features are mentioned in the Radwin publication as concerning demographic characteristics. The Examiner then concludes that the applicants' argument is therefore not directed to the features of the claims. (See Paper No. 20060925, page 10.) As discussed during the telephone interview, the Examiner's conclusion is irrelevant since the applicants'

argument is directed to **the Examiner's rationale for modifying the Radwin publication**, not to features of the claims. It is the Examiner who cited paragraph [0007] of the Radwin publication as disclosing the use of demographic profiling.

As the undersigned noted during the telephone interview, if it is the Examiner's position that the use of demographic profile discussed in the Radwin publication does not pertain the claimed "country, locale, language, and daily budget," then the applicants respectfully submit that the Examiner has not made a prima facie showing of obviousness. If, on the other hand, it is the Examiner's position that the discussion of the demographic profiling in the Radwin publication somehow suggests the foregoing claimed features, the applicants reiterate the fact that the Radwin publication teaches away from the use of demographic information.

During the telephone interview, the Examiner clarified that it is his position that although the Radwin publication may teach away from the use of demographic information **by itself** in ad serving, it does not teach away from the use of demographic information **in combination with other information** in ad serving. During the telephone interview, the undersigned disagreed, noting that one of the concerns of the Radwin publication was that users can intentionally provide inaccurate information about themselves. Such problems are not eliminated when demographic information is used in combination with other information for purposes of ad serving. Thus, the "significant drawbacks" of demographic ad targeting mentioned by the Radwin publication would still exist in an ad system that used

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demographics in combination with other information for serving ads. The applicants believe that **one skilled in the art would** understand from the Radwin publication that a user's actions (e.g., in terms of past search queries) are more important and useful than information that a user might enter about themselves, and would therefore **not be inclined to dilute or corrupt useful information with information with significant drawbacks.**

Thus, dependent claims 6 and 20 are not rendered obvious by the Radwin publication for at least the foregoing reason.


### **Conclusion**

In view of the foregoing remarks, the applicants respectfully submit that the pending claims are in condition for allowance. Accordingly, the applicants request that the Examiner pass this application to issue.

Any arguments made in this amendment pertain **only** to the specific aspects of the invention **claimed**. Any claim amendments or cancellations, and any arguments, are made **without prejudice to, or disclaimer of**, the applicant's right to seek patent protection of any unclaimed (e.g., narrower, broader, different) subject matter, such as by way of a continuation or divisional patent application for example.

Respectfully submitted,

May 30, 2007

  
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